

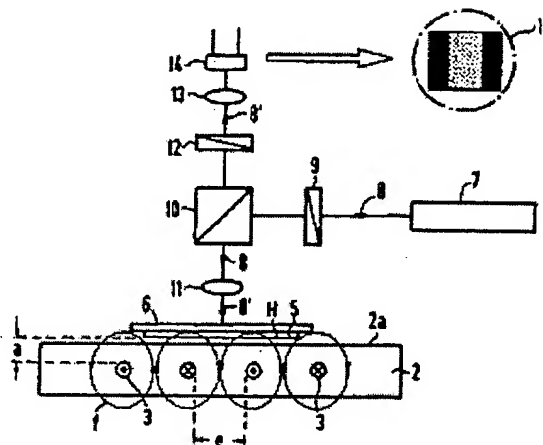
Detecting covered current paths in highly integrated circuits - using magneto-optical film and device to produce contrast image

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The method of detecting covered current paths in a body (2) which are insulated w.r.t. a free surface (2a) involves detecting a magnetic field of known strength at the surface caused by currents flowing in the conducting paths. The free surface is covered by a thin film (5) of magneto-optical material with magnetic anisotropy with a defined orientation of the easy magnetisation direction. The magnetisation normal to the surface depends essentially linearly on the field. The instantaneous magnetisation state in the film influences the magneto-optical rotation angle to appear as a contrast image (15) in a magneto-optical device (14).

USE/ADVANTAGE - E.g. for fault detection in highly integrated circuits. For convenient location and testing of concealed current paths without ingress.



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